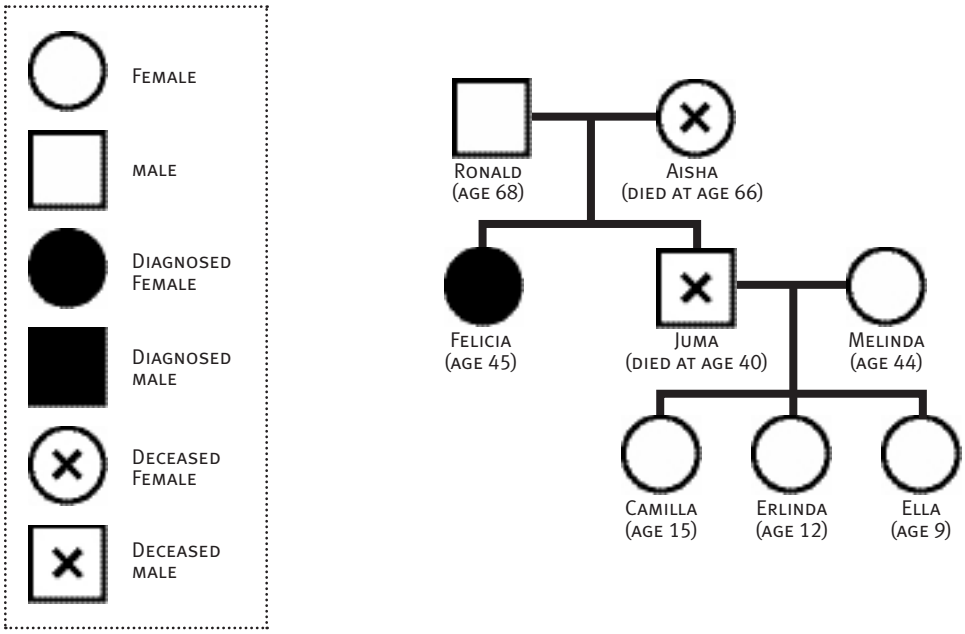
Camilla's Case: Colon Cancer and Genetic Testing

Camilla has an aunt, Felicia, who was recently diagnosed with colon cancer. On the basis of Felicia's age and molecular markers within her tumor cells, her doctors strongly suspect that Felicia has a certain inherited form of colon cancer called hereditary nonpolyposis colorectal cancer (HNPCC). Even though Felicia could get a genetic test to confirm this, she decides that she is not emotionally ready for the genetic test. However, she shares the doctor's concern with the rest of her family, in case others want to get the test. Felicia's only request is that they do not share the results of any genetic tests with her.

Camilla's mom wants her to get the genetic test; she'd like to know whether her eldest daughter is at risk for HNPCC. The mutation is a risk factor for cancer but does not alone cause cancer. Camilla doesn't want to have the genetic test now, despite pressure from her mother.

Camilla's Family Tree



NOTE: Shading means the person was diagnosed with colon cancer; however, a diagnosis does not necessarily mean that the person had HNPCC. Aisha and Juma have died, but not of cancer.

Ethical Questions

- Who should decide whether Camilla will have this genetic test?
- If Camilla were to have the genetic test, who else (if anyone) should learn the results?

Scientific Question	Answer
How is this mutation inherited?	It is autosomal and dominant.
If someone tests positive for the HPNCC genotype, what is that person's lifetime chance of developing colon cancer?	The person has an 80% chance of developing colon cancer by age 75.
How old, on average, is a person when he or she gets this type of colon cancer?	The average age of onset is 44.
Are there any followup, preventive-care options for people who test positive for this mutation?	Yes, Camilla could get colonoscopies regularly so that her colon and large intestine are thoroughly examined often. Regular colonoscopies and early detection of colon cancer is critical; when colon cancer is caught early, more than 90% of patients will live for at least five years after their diagnosis. Also, dietary changes and/or medications might delay the onset of the colon cancer.
Would a positive genetic test result indicate a higher chance of other types of cancer?	Yes, including stomach, uterine, and ovarian cancers.

Instructions

Using the relevant facts above *and* ethical considerations (respect for persons; minimizing harms and maximizing benefits), write a letter addressed to Camilla, her mother, or her doctor. In this letter, you must address the following:

PART I: Who should decide whether Camilla will have this genetic test? You must provide three reasons in support of your answer that reveal your understanding of both the relevant facts *and* ethical considerations.

PART II: If Camilla were to have the genetic test, who else (if anyone) should learn the results? Assume that Camilla does have the test and that Camilla, her mother, and her doctor learn the results. Camilla has voiced a strong preference that no one else in the family learns about her personal results. How should Camilla's mother handle this? Should she tell anyone else in the family about the test? Explain what Camilla's mother should do, giving **two** reasons to support your answer. Again, these reasons must reveal your understanding of both the relevant scientific facts *and* the ethical considerations.

Name(s) _____

You can use the following checklist to help you complete your letter.

✓	Requirement
	Part I
	Did I answer the question, Who should decide?
	Did I provide at least three reasons? Do my reasons show that I understand the ethical considerations *and* the relevant scientific facts?
	Part II
	Did I answer the question, Who else, if anyone, should learn the results?
	Did I provide at least two reasons? Do my reasons show that I understand the ethical considerations *and* the relevant scientific facts?
	Overall
	Did I organize my work into paragraphs, proofread, and elaborate (provide depth to my answers)?